REMARKS/ARGUMENTS

Claims 1-50 are pending in this application, all of which have been rejected as a result of the December 23, 2003 Office Action. Following entry of the amendment, claims 1, 2, 3, 5, and 50 will have been amended. Claims 1-4 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,237,135 (Timbol). Claims 5, 6, 8-10, and 13-16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Timbol in view of U.S. Patent No. 6,424,979 (Livingston). Claims 7, 11, 12, and 17-50 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Timbol in view of Livingston and in further view of U.S. Patent No. 6,654,029 (Chiu). Claim 50 has been rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants respectfully request reconsideration in view of the amendments and remarks.

The Section 112 Rejection

In response to the rejection of claim 50, applicants have amended claim 50 to clarify that "aspects of an environment" are one factor on which the selection of a code module is based. Applicants respectfully submit that the amendment is responsive to the rejection. Applicants further submit that the amendment merely restates the original scope of the claim in a different form, and that the amendment does not affect the underlying substance or scope of he claim.

The Section 102 and 103 Rejections

As summarized above, the claims have been variously rejected over Timbol, or over various combinations of Timbol, Livingston, and Chiu. For the reasons set forth below, applicants respectfully submit that the claims are patentably distinct from the prior art cited.

The Prior Art

The following is a brief description of the prior art Timbol, Livingston, and Chiu references cited in the Office Action:

The Timbol patent is entitled "Development System with Visual Design Tools for Creating and Maintaining Java Beans Components." The Timbol patent is specifically directed to rapid application development (RAD) using Java Beans, and the detailed description contained in the Timbol patent is focused on a "wizard," which comprises a particular set of interfaces. (See col. 7, line 41 through col. 19, line 60 & FIGS. 2C through 11.) A developer uses the wizard's interfaces to specify information about a particular "bean," and the wizard automatically creates the bean (See Timbol, Abstract.)

The Livingston patent is entitled "System for Presenting and Managing Enterprise Architectures." The system described in Livingston provides content to a user through a web browser. (See Livingston, col. 2, ll. 34-62.) A user is associated with a "profile," which indicates "the level of detail and time frame of information to be obtained." (See Livingston, Abstract.) Information satisfying the criteria specified in the profile is obtained from a database and then formed into a web page. (See Livingston, Abstract.)

The Chiu patent is entitled "Data-Base Independent, Scalable, Object-Oriented Architecture and API for Managing Digital MultiMedia Assets." The system described in Chiu is generally directed to a system for providing "a consistent and efficient production environment for the development of various types of multimedia works and for the orderly archiving of the multimedia woks to facilitate their re-use in later projects." (Chiu, col. 2, ll. 3-7.) The various types of multi-media are stored in a database management system (DBMS). (Chiu, col. 3, ll. 1-7.)

Independent claim 1

Claim 1 has been rejected under section 102(e) as being anticipated by Timbol. As discussed above, Timbol is directed to Rapid Application Development (RAD) using Java beans. Timbol describes a "wizard" that is used to develop the bean. In rejecting claim 1, the Examiner has cited Timbol's teachings with respect to: the naming of a bean, and its membership in a particular class (col. 4, ll. 20-22, 25-26); the making of changes to a bean that has already been created (col. 10, lines 17-20); the use of a wizard to generate code (col. 9, ll. 64-67); and the use of a bean as a listener that can respond to events (col. 16, ll. 59-67). Applicants respectfully submit that the cited portions of Timbol do not teach the features of claim 1, as amended.

While Timbol describes the use of a bean as a listener for events, the bean is structurally different from the claimed customization object. In particular, Timbol uses only a single bean that contains the code to respond to various different events. (See Timbol, col. 16, ll. 23-57.) As shown in Timbol, a single bean (see the code example at col. 16, ll. 37-57) implements a listener function ("KeyListener"), and also contains the code to responds to the various events heard by the listener (i.e., the bean contains the code for the keyTyped, keyPressed, and keyReleased events that the listener can respond to). By contrast, the claimed customization object "invokes at least one of a plurality of customized code sequences based on said data or logic, *each of the at least one customized code sequences being separately retrievable from a source separate from said customization object*" (emphasis added). In other words, while Timbol's bean contains the code needed to respond to an event, claim 1 responds to events by invoking one of a plurality of code sequences that are separately retrievable from a separate object. By separating the code that actually responds to events from the event handler itself, the claimed structure provides a level of modularity, extensibility, and reusability of components that is not afforded by Timbol's self-contained bean.

Thus, applicants respectfully submit that claim 1 is structurally and patentably distinct from Timbol, and request that the section 102(e) rejection of claim 1 over Timbol be withdrawn.

Independent Claim 9

Claim 9 has been rejected under section 103(a) as being unpatentable over Timbol in view of Livingston. As discussed above, Livingston describes a system in which a web page can be created based on a user profile; Livingston retrieves different content from a database depending on the profile of the user for whom the content is being created. Livingston then creates the web page based on the retrieved content. However, neither Livingston nor Timbol teaches the features of claim 9, alone or in combination.

Claim 9 is directed to a method of performing a task that comprises both fixed and variable actions. Claim 9 recites "selecting a custom code module from a plurality of custom code modules," where each of the custom code modules comprises executable components, and where each of the executable components corresponds to a particular variable action. While Livingston arguably discusses that components can be selected and assembled to form a web page (see Livingston, Abstract, and col. 12, ll. 25-30), Livingston does not teach the selection of a custom *code* module that comprises *executable* components. Moreover, as noted above, Timbol discusses the creation of a Java bean that can "listen" for various different events, but does not teach that code module (or bean) is *selected* from a plurality of code modules that contain code to perform variable actions.

Thus, applicants respectfully submit that claim 9 is patentably distinct from Timbol and Livingston, either alone or in combination, and that the section 103 rejection of claim 9 should be reconsidered and withdrawn.

Independent Claim 17

Claim 17 has been rejected under section 103(a) as being unpatentable over Timbol in view of Livingston and Chiu. Claim 17 is directed to a method of performing a task that comprises predetermined actions and an externally-definable action. Claim 17 calls for performing the set of predetermined actions, generating a database query, and then "retrieving, based on said database query, a code module from a database," where the code module includes an instruction set that performs the externally-definable actions. Thus, claim 17 calls for retrieving a code module from a database, and then loading and invoking the code module.

The Examiner acknowledges that Timbol does not teach the use of a database. (See Office Action, p. 7.) The Examiner appears to assert that the database feature is found in either Livingston or Chiu (although the Office Action is unclear as to which reference is asserted to teach this feature). While both Livingston and Chiu mention the existence of a database, neither reference teaches or suggests the above-described features of claim 17 because neither reference teaches or suggests the retrieval of a *code module* from a database. As discussed above, Livingston discusses the retrieval of web page content from a database. Chiu suggests that "all of the multimedia *data*" (emphasis added) can be stored in a database. (Chiu, col. 3, ll. 1-7.) However, storing data or web content in a database is not the same as storing code in a database. The Examiner appears to argue (Office Action, p. 8) that Chiu's teaching of "provid[ing] an integrated platform for a variety of diverse computerized utilities and application programs that operate on and/or create various types of multimedia data," teaches the retrieval of code from a database. It is unclear how this quoted portion relates to the retrieval of code from a database, since it mentions neither code nor databases.

Thus, the combination of Timbol, Livingston, and Chiu does not yield the invention recited in claim 17.

Moreover, the Examiner has not met the burden of demonstrating motivation to combine or modify, as required for an obviousness rejection. See MPEP 706.02(j). The Examiner does not propose modifying any of the Timbol, Livingston, and Chiu references to yield the retrieval of code from a database; rather, the Examiner indicates (Office Action, p. 8) that such a teaching is already found in one of the references. Thus, the Examiner has not demonstrated, or even asserted, that there is a motivation to modify the references (and, as discussed above, the references would need to be modified to yield the claimed invention, since none of the references stores code in a database). Additionally, the Examiner has not even demonstrated a motivation to combine the references. To the extent that Livingston and/or Chiu teaches the storage or retrieval of data from a database, and to the extent that the code components recited in claim 17 can be considered analogous to Timbol's Java bean, the Examiner has not explained why it would be advantageous to store a Java bean in a database. The present invention stores code in a database so that alternative portions of code can be retrieved from the database, and executed, depending on circumstances. There is no suggestion in Timbol that it would be desirable to interchange alternative portions of code, so there would be no need to store such code portions in a database. Nor does Timbol suggest any other reason for which it would be desirable to store code in a database. At a minimum, the Examiner has not demonstrated any such reason.

Thus, applicants respectfully submit that claim 17 is patentably distinct from Timbol, Livingston, and Chiu, either alone or in combination, and that the section 103 rejection of claim 17 should be reconsidered and withdrawn.

Independent Claims 27 and 38

Claims 27 and 38 have been rejected under section 103 as being unpatentable over Timbol in view of Livingston and Chiu. Claims 27 and 38 are rejected in the same paragraph of the Office Action as claim 17, and the Examiner has not differentiated between these three claims. Applicants respectfully submit that claims 27 and 38 are patentable for the same reason that claim 17 is patentable.

Claim 27 recites a database that stores custom code modules. A software object requests information from the database, receives a custom code module in response to the request, and loads the custom code module for execution. Claim 38 calls for two sets of instructions to be stored in a database, whereby the database may be queried by a software object in order to invoke whichever set of instructions satisfies the query. For the reasons discussed above in connection with claim 17, Timbol, Livingston, and Chiu, either alone or in combination, do not teach or suggest the storage and retrieval of code in a database.

Thus, applicants respectfully submit that claims 27 and 38 are patentable over Timbol, Livingston, and Chiu, and request that the rejection of claims 27 and 38 be reconsidered and withdrawn.

Independent Claim 44

Claim 44 has been rejected under section 103(a) as being unpatentable over Timbol in view of Livingston and Chiu. Claim 44 calls for either code, or a pointer to code, to be retrieved from a database based on a query. For the reasons discussed above in connection with claims 17, 27, and 38, Timbol, Livingston, and Chiu do not teach the storage or retrieval of code in a database. Likewise, those references do not teach the storage or retrieval of a pointer to code in a database. Thus, the Examiner's proposed combination of Timbol, Livingston, and Chiu does not yield the invention recited in claim 44.

Moreover, claim 44 calls for "ascertaining one or more attributes of said operating environment external to said software object," where the query to the database is based on the attributes. Thus, some aspect of the environment in which the software object operates is used to form the query to the database. Timbol, Livingston, and Chiu, do not teach or suggest this feature. The Examiner's citation of Chiu (Office Action, p. 9) indicates that the Examiner finds that "different support code" is the same as an "environment," or that "asset attributes" are the same as attributes of an environment. The cited portions are not the "attributes of ... [an] environment" that are recited in claim 44, and there is no reasonable analogy between the claimed environmental attributes and the portions of Chiu applied to this feature by the Examiner. Applicant submits that the derivation of a query from environmental attributes is found *nowhere* in any of the art cited art.

Thus, applicants respectfully submit that claim 44 is patentable over Timbol, Livingston, and Chiu, either alone or combined, and thus request that the section 103 rejection of claim 44 be reconsidered and withdrawn.

Independent Claim 50

Claim 50 has been rejected under section 103(a) as being unpatentable over Timbol in view of Livingston and Chiu. Claim 50 is rejected in the same paragraph of the Office Action as claim 44, and the Examiner does not differentiate between claims 44 and 50 in applying the references. Claim 50 calls for a code module to be selected based on factors comprising "aspects of an environment in which said code module executes." For the reasons discussed above in connection with claim 44, Timbol, Livingston, and Chiu do not teach or suggest the use of environmental aspects to select a code module.

Thus, applicants respectfully submit that claim 50 is patentable over Timbol, Livingston, and Chiu, either alone or in combination, and request that the rejection of claim 50 under section 103 be reconsidered and withdrawn.

Dependent Claims

In addition to the demonstrated patentability of the independent claims, various dependent claims were also shown to be patentable in applicants previous response to the April 25, 2003 Office Action. Applicants submit that these claims remain patentable, even in view of the new grounds for rejection. In particular:

- Claims 5 and 10 calls for the retrieval of code from a database. As discussed above, none of the cited references describe the retrieval of code from a database.

- Claims 7, 12, 20, 32, and 33 call for the information to be derived from the environment, and for the derived information to be used as part of a database query. Except for claim, these claims all call for the information to be used to construct a moniker string that is used as part of the query. Timbol, Livingston, and Chiu do not teach these features.

- Claim 21 calls for the retrieval, from a database, of a pointer to code. As discussed above in connection with claim 44, none of the applied references teach the use of a database to store or retrieve a pointer to code.

No New Matter

The amendments to claims 1, 2, 3, 5, and 50 are supported by the specification as originally-filed, and do not constitute new matter. In particular, the amendments to claims 1, 2, 3, and 5 are supported at least by FIGS. 5 and 6 and pages 16-17 of the application. The amendment to claim 50 is a formal change to the wording of the claim that does not change the scope of claim 50, and thus no new matter is introduced by the amendment to claim 50.

Conclusion

Claims 1, 5, 7, 9, 10, 12, 17, 20, 21, 27, 32, 33, 38, 44, and 50, have been shown to be patentable. Moreover, since all of the remaining claims are dependent, either directly or indirectly, on claims 1, 5, 7, 9, 10, 12, 17, 20, 21, 27, 32, 33, 38, 44, and 50, all of the remaining claims are patentable at least by reason of their dependency. Moreover, the section 112, second paragraph, rejection of claim 50 has been overcome. Thus, all claims have been shown to be patentable, and applicants respectfully request an early and favorable action allowing this case.

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